C L A I M S

1. An adhesive composition characterized as containing a compound (X) having a crosslinkable or polymerizable group and a compound (Y) which is activated when exposed to an active energy radiation to generate species that cause crosslinking or polymerization of at least a part of the compound (X) wherein:

said composition has a viscosity at 25 ℃ of 1 - 10,000,000 cps; a conversion of the compound (X) immediately after exposure of the adhesive composition to the active energy radiation does not exceed 70 %; a conversion of the compound (X) after exposure of the adhesive composition to the active energy radiation and subsequent 24-hour aging at 25 ℃ is in the range of 50 - 100 %; and after exposure of the adhesive composition to the active energy radiation and subsequent 24-hour aging at 25 ℃, the cured composition has an elongation at break of 10 - 1,000 % and a dynamic tensile modulus in the range of 10^5 - 10^9 Pa.

2. The adhesive composition as recited in claim 1, characterized in that the conversion of the compound (X) immediately after exposure of the adhesive composition to the active energy radiation is in the range of 10 - 70 %, and the adhesive composition immediately after its exposure to the active energy radiation has a dynamic shear modulus

in the range of 10^5 - 10^7 Pa.

3. The adhesive composition as recited in claim 1, characterized in that the conversion of the compound (X) immediately after exposure of the adhesive composition to the active energy radiation does not exceed 30 % and the adhesive composition has a viscosity at 25 ℃ of 1 - 10,000,000 cps; and

the conversion of the compound (X) after exposure of the adhesive composition to the active energy radiation and subsequent 12-hour aging at 25 ℃ is in the range of 50 - 100 %.

4. An adhesive composition characterized as containing the following components:

(A) a compound having at least two hydrolyzable silyl groups in a molecule;

(B) a compound which initiates crosslinking of the compound (A);

(C) a compound having a polymerizable group in a molecule;

(D) a compound which is activated by irradiation to initiate polymerization of the polymerizable group in the compound (C); and

(E) a thixotropic agent.

5. The adhesive composition as recited in claim 4, characterized in that the hydrolyzable silyl group in the

compound (A) is a alkoxysilyl group, and the compound (A) is a compound containing the alkoxysilyl group substituted in a polymer selected from polyalkylene glycols and polyolefins.

6. The adhesive composition as recited in claim 4 or 5, characterized in that the polymerizable group in the compound (C) is a free-radically polymerizable group and the compound (D) is a photochemically free-radical generating agent.

7. The adhesive composition as recited in any one of claims 4 - 6, characterized in that the free-radically polymerizable group in the compound (C) is a polymerizable group selected from acryloyl and methacryloyl groups.

8. The adhesive composition as recited in any one of claims 4 - 7, characterized in that the compound (C) contains at least one type of compound (F) containing at least one polymerizable group in a molecule and having a weight average molecular weight of not less than 3,000.

9. The adhesive composition as recited in any one of claims 4 - 8, characterized in that the thixotropic agent (F) is at least one type selected from the group consisting of glass balloons, glass beads, surface-treated calcium carbonates and various silicas.

Sub a4 10. A method of joining members characterized as comprising, in sequence, applying the adhesive composition as recited in any one of claims 1 - 9 to one of the members,

exposing a top surface of the applied adhesive composition layer to an active energy radiation and combining the one member with the other member.

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